



ÖZGEÇMİŞ

- Adı Soyadı:** Oral OLTULU
- Doğum Tarihi:** 9 Ağustos 1968
- Unvanı:** Profesör
- Öğrenim Durumu:**

Derece	Alan	Üniversite	Yıl
Lisans	Fizik Mühendisliği	Hacettepe Üniversitesi	1992
Y. Lisans	Fizik	Mississippi State University	1996
Doktora	Fizik	Illinois Institute of Technology	2003

5. Akademik Unvanlar

Araştırma Görevlisi	Sağlık Bilimleri Enstitüsü Biofizik	Marmara Üniversitesi	1993 - 1994
Dr.Ar.Gör.	Fen-Edebiyat Fakültesi Fizik Bölümü	Harran Üniversitesi	2003 – 2004
Yar.Doç.Dr.	Fen-Edebiyat Fakültesi Fizik Bölümü	Harran Üniversitesi	2004-2010
Doçent	Fen-Edebiyat Fakültesi Fizik Bölümü	Harran Üniversitesi	2010-2015
Profesör	Fizik Bölümü	Harran Üniversitesi	2015-....

6. Yönetilen Yüksek Lisans ve Doktora Tezleri

6.1 Yüksek Lisans Tezleri

1. Yaşar, M. M., “*Difraksiyon Artırmalı Görüntüleme için Matematiksel Bir Model*”, Harran Üniversitesi, 2009.
2. Esen, H., “*Yönlendirilmiş Nematik Sıvı Kristaller ve Yönelim Açısının Hesaplanması*”, Harran Üniversitesi, 2013.

6.2 Doktora Tezleri

1. Nuri YORULMAZ, “*Karbonik Anhidraz Enzimi İnhibitörleri İçin Kuvvet Alanlarının Geliştirilmesi*” 2013- devam ediyor. Danışman: Doç.Dr. Erol EROĞLU eşliğinde.

7. Yayınlar

A. Uluslararası hakemli dergilerde yayınlanan makaleler

1. M. Hasnah, **O. Oltulu**, Z. Zhong, D. Chapman, “Single-exposure simultaneous diffraction-enhanced imaging. Nuclear Instruments and Methods in Physics Research A 492: 236-240, (2002).
2. M. Hasnah, Z. Zhong, **O. Oltulu**, E. Pisano and R. E. Johnston, D. Sayers, W. Thomlinson, D. Chapman. “Diffraction Enhanced Imaging contrast mechanisms in breast cancer specimens,” Med. Physics, Vol. 29 No. 10: 2216-2221, (2002).
3. J. Mollenhauer, M. E. Aurich, Zhong Zhong, Carol Muehleman , A. A. Cole, M. Hasnah , **Oral Oltulu**, K.E. Kuettner, A. Margulis and Dean Chapman, “Diffraction-enhanced Xray imaging of articular cartilage,” Osteoarthritis and Cartilage J. Osteoarthritis Research Society International 10 163-171 (2002).
4. Z. Zhong, D. Chapman, D. Connor, A. Dilmanian, N. Gmür, M. Hasnah, R. E. Johnston, M. Kiss, J. Li, C. Muehleman, **O. Oltulu**, C. Parham, E. Pisano, L. Rigon, D. Sayers, W. Thomlinson, M. Yaffe, and H. Zhong, “Diffraction Enhanced Imaging of Soft Tissues”, Synchrotron Radiation News 15 (6) 27-34 (2002).
5. M. Hasnah, **O. Oltulu**, Zhong, D. Chapman, “Application of absorption and refraction matching techniques for diffraction enhanced imaging,” Review of Scientific Instruments, Vol. 73(3): 1657-1659, (2002).
6. N. Wernick, Oliver Wirjadi, Dean Chapman, **Oral Oltulu**, Zhong Zhong, and Yongyi Yang, “Priliminary Investigation of a Multiple Image Radiography Method” Biomedical Imaging IEEE International Symposium 116(2):257-260, (2002).
7. Miles Wernick, Oliver Wirjadi, Dean Chapman, Zhong Zhong, Nikolas Galatsanos, Yongyi Yang, Jovan Brankov, **Oral Oltulu**, Mark Anastasio and Carol Muehleman, “Multiple Image Radiography. Physics in Medicine and Biology 48 3875-3895, (2003).
8. **Oral Oltulu**, Zhong Zhong, Moumen Hasnah, Miles Wernick and Dean Chapman, “Extraction of extinction, refraction and absorption properties in diffraction enhanced imaging. J. Phys. D: Appl. Phys. 36 2152-2156 (2003).

9. M.O. Hasnah, **O. Oltulu**, C. Parham, E.D. Pisano, Z. Zhong, and D. Chapman, "Mass Density Images from the Diffraction Enhanced Imaging Technique," *Med Phys.* 32(2):549-52, (2005).
10. Erol Eroglu, Selami Palaz, **Oral Oltulu**, Hasan Turkmen and Cihat Özaydın, "Comparative QSTR Study Using Semi-Empirical and First Principle Methods Based Descriptors for Acute Toxicity of Diverse Compounds to the Fathead Minnow," *Int. J. Mol. Sci.* 8, 1265-1283, (2007).
11. Erol Eroglu, Hasan Turkmen, Semra Guler, Selami Palaz and **Oral Oltulu**, "A DFTBased QSARs Study of Acetazolamide/Sulfanilamide Derivatives with Carbonic Anhydrase (CA-II) Isozyme Inhibitory Activity," *Int. J. Mol. Sci.* 8, 145-155, (2007).
12. **Oral Oltulu**, Mehmet M. Yaşar, Erol Eroğlu, "A QSAR study on relationship between structure of sulfonamides and their carbonic anhydrase inhibitory activity using the eigenvalue (EVA) method," *European Journal of Medicinal Chemistry* 44, 3439–3444, (2009).
13. E. Bacaksız, M. Altunbaş, S. Özçelik, **O. Oltulu**, M. Tomakin, S. Yılmaz, "Structural characterization of $Zn_{1-x}Cd_xO$ ($0 \leq x \leq 0.20$) microrods grown by spray pyrolysis," *Materials Science in Semiconductor Processing* 12, 118–121 (2009).
14. S.A. Brandán, E. Eroğlu, A.E. Ledesma, **O. Oltulu**, O.B. Yalçınkaya, "A new vibrational study of Acetazolamide compound based on normal coordinate analysis and DFT calculations," *Journal of Molecular Structure* 993 225–231 (2011). doi:10.1016/j.molstruc.2010.11.012
15. Sevket Simsek, Husnu Koc, Selami Palaz, **Oral Oltulu**, Amirullah M. Mamedov, and Ekmel Ozbay. "Band gap and optical transmission in the Fibonacci type one-dimensional A5B6C7 based photonic crystals". *Phys. Status Solidi C* 12(6), 540–544 /DOI 10.1002/pssc.201400244 (2015).
16. Husnu Koc, Sevket Simsek, Selami Palaz, **Oral Oltulu**, Amirullah M. Mamedov, and Ekmel Ozbay. "Mechanical, electronic, and optical properties of the A4B6 layered ferroelectrics: ab initio calculation". *Phys. Status Solidi C* 12(6), 651–658 DOI: 10.1002/pssc.201400245 (2015).
17. Simsek S., Koc H.; Palaz S., **Oltulu O.**, Mamedov A.M., Ozbay E. "SbSI Based Photonic Crystal Superlattices: Band Structure and Optics". *IOP Conf. Series: Materials Science and Engineering* 77, 012020, doi:10.1088/1757-899X/77/1/012020 (2015).
18. Sevket Simsek, Husnu Koc, Selami Palaz, **Oral Oltulu**, Amirullah M. Mamedov, and Ekmel Ozbay. "Dynamic nonlinear optical processes in some oxygen-octahedra ferroelectrics: First principle calculations". *Ferroelectrics*, 483: 26-42, (2015).
19. **Oral Oltulu**, Fatih Çakırtaş, Nuri Yorulmaz, Suleyman Yılmaz. "Visible spectroscopy of 5CB/8CB liquid crystals". *Phase Transitions*, 1-7, (2015).

20. **Oral Oltulu**, Sevket Simsek, Amirullah M. Mamedov and Ekmel Ozbay. “Phononic band gap and wave propagation on polyvinylidene fluoride-based acoustic metamaterials”. *Cogent Physics* 3: 1169570, (2016).
21. **Oral Oltulu**, Sevket Simsek, Amirullah M. Mamedov, Ekmel Ozbay. “Topological insulator based locally resonant phononic crystals: Wave propagation and acoustic band gaps”. *Ferroelectrics* 499, 123–129, (2016).
22. **Oral Oltulu**, Amirullah M. Mamedov, Ekmel Ozbay. “Wave Propagation and Acoustic Band Gaps of Two-Dimensional Liquid Crystal/Solid Phononic Crystals”. *Applied Physics A* (2016) (accepted).
23. **Oral Oltulu**, Amirullah M. Mamedov, Ekmel Ozbay. “Band Gap Structure of Elliptic Rods in Water for a 2D phononic crystal”. *Applied Physics A* (2016) (submitted).

B. Uluslararası bilimsel toplantılarda sunulan ve bildiri kitabında (*Proceedings*) basılan bildiriler

1. Z. Zhong D. Chapman, M. Hasnah E. Johnston, **O. Oltulu**, L. Rigon, N. Zhong, E. Pisano, D. Syaers, W. Thomlinson “X-ray diffraction order selection with a prism in DEI,” (abstract) (*A*) *Review of Scientific Instruments*. 73(3) 1614 (2002).
2. **Oral Oltulu**, Zhong Zhong, Moumen Hasnah, and Dean Chapman, “Multiple Image Radiography With Diffraction Enhanced Imaging For Breast Specimen,” sixth international conference of the balkan physical union, *American Institute of Physics* 899: 451-452, (2007). (Sozlu Bildiri)
3. Murat Yaşar, Erol Eroglu, Selamı Palaz, Yunus Babur, **Oral Oltulu**, “Mass-Density Image Simulation by X-Ray Diffraction Enhanced Imaging,” 24th International Physics Congress of Turkish Physical Society, 28-31 August 2007, Malatya-TURKEY. *Balkan Physics Letters*, 2008 Special Issue, Boğaziçi University Press, ISSN 1301-8329, (2007). (Poster Bildiri)
4. S.A. Brandán, E. Eroğlu, A.E. Ledesma, **O. Oltulu**, O.B. Yalçınkaya, “DFT molecular force field of acetazolamide compound ,” *EUCMOS 2010 30th European Congress on Molecular Spectroscopy with GISR 2010*, 290 ITALY (2010). (Poster Bildiri)
5. Cakirtas F, Yorulmaz N, **Oltulu O**, Yilmaz S, “Study of optical anisotropy of nematic liquid crystal by UV/Vis spectroscopy”. *Turk Fizik Derneği 31. Uluslararası Fizik Kongresi* 21-24/07/2014, Bodrum (2014). (Poster Bildiri)
6. Esen H, Cakirtas F, N Yorulmaz, **Oltulu O**, “Pretilt angle determination of aligned nematic liquid crystals”, *Turk Fizik Derneği 31. Uluslararası Fizik Kongresi* 21-24/07/2014, Bodrum (2014). (Poster Bildiri)
7. H. Koc, S. Simsek, S. Palaz, **O. Oltulu**, A. M. Mamedov, and E. Ozbay,” Band Structure and Optical Properties of the A4B6 Layered Ferroelectrics:ab initio

calculations”, ICTMC-19 19th International Conference Ternary and Multinary Compounds September 1-5, 2014, Niigata, JAPAN (2014). (Poster Bildiri)

8. Sevket Simsek, Husnu Koc, Selami Palaz, **Oral Oltulu**, Amirullah M. Mamedov, and Ekmel Ozbay. “Band gap and optical transmission in the Fibonacci type one-dimensional A5B6C7 based photonic crystals”. ICTMC-19 19th International Conference Ternary and Multinary Compounds September 1-5, 2014, Niigata, JAPAN (2014). (Poster Bildiri)
9. Simsek S., Koc H.; Palaz S., **Oltulu O.**, Mamedov A.M., Ozbay E. “SbSI Based Photonic Crystal Superlattices: Band Structure and Optics” .IOP Conference Series- Materials Science and Engineering : 77 Article Number: 012020 (2014).
10. **O. Oltulu**, A Günes, S Simsek, A Mamedov, E Ozbay, “PVDF/Topological Insulator Solar Cell Light Trapping Using Photonic Crystals”, *1st International Conference on Organic Electronic Material technologies*. Elazığ (2015). (Sözlü Bildiri)
11. **O. Oltulu**, A Günes, S Simsek, A Mamedov, E Ozbay, Phononic band gap and wave propagation on polyvinylidene fluoride based acoustic metamaterials. *1st International Conference on Organic Electronic Mateiual technologies*. Elazığ (2015). (Poster Bildiri)
12. Sevket Simsek, **Oral Oltulu**, Amirullah M. Mamedov, Ekmel Ozbay, “Fibonacci Sequences Quasiperiodic Nonlinear Photonic Crystals: FDTD Analysis”, *13th European Meeting on Ferroelectricity EMF 2015*, Porto, PORTUGAL (2015). (Sözlü Bildiri)
13. **O.Oltulu**, S. Simsek, A.M. Mamedov, and E. Ozbay, “Topological Insulator Based Locally Resonant Phononic Crystals: Wave Propagation and Acoustic Band Gaps”, *13th European Meeting on Ferroelectricity EMF 2015*, Porto, Portugal (2015). (Poster Bildiri)
14. S. Palaz, **O. Oltulu**, A. M. Mamedov, and E. Ozbay. A5B6C7 Ferroelectrics as Novel Materials for photonic Crystal. The joint RCBJSF-IWRF Conference. Shimane - Japan 19-23 June (2016). (Sözlü Bildiri)
15. **Oral Oltulu**, Amirullah M. Mamedov, Ekmel Ozbay. Wave Propagation and Acoustic Band Gaps of Liquid Crystal/Solid Systems. The 7th International Conference on Metamaterials, Photonic Crystals and Plasmonics, META’16 Malaga – Spain 25-28 July (2016). (Poster Bildiri)
16. Amirullah Mamedov, **Oral Oltulu**, Ekmel Ozbay. Effect of Material Parameters on Band Gap of Sonic Crystals (BaTiO3/Polar Liquids). The 7th International Conference on Metamaterials, Photonic Crystals and Plasmonics, META’16 Malaga – Spain 25-28 July (2016). (Poster Bildiri)

C. Ulusal bilimsel toplantılarda sunulan ve bildiri kitabında basılan bildiriler

1. **Oral Oltulu** , Zhong Zhong, Moumen Hasnah, Miles Wernick, Dean Chapman, “Diffraction Enhanced Imaging Analyzed Using Statistical Moments,” 22. *Türk Fizik Derneği Kongresi* 14-17 Eylül Bodrum (2004). (Sozlu Bildiri)
2. Serife Pınar Yalçın, Selami Palaz , **Oral Oltulu**, Mehmet Akkurt and Erol Eroğlu “ Conformation Analysis of 1X-Benzyl-1-(2,4-Dimethoxyphenyl)-3-PhenoxySpiro[azetidine-2,3X (3H)-indole]-2X,4(1H)-Dione by DFT calculations “ *Advances In Applied Physics and Materials Science Congress, (APMAS-2011)*, Mirada Del Mar HOTEL, Kemer, ANTALYA Mayıs 12-15, 2011.

D. Diğer Yayınlar

1. **Oral Oltulu**, Hansheng Zhang, Jagdish P. Singh and Fang-Yu Yueh and Robert L. Cook, “ A Quantitative Determination of Uranium, Strontium and Thorium by Laser Induced Breakdown Spectroscopy,” Sixtieth Annual Meeting Program and Abstracts Issue. February 22-23, Journal of The Mississippi Academy of Sciences, 41(1), (1996).
2. Erol Eroğlu, **Oral Oltulu**, M. Murat YAŞAR, Hasan Türkmen, “an application of spectral eva descriptor for a qsar model of inhibition of carbonic anhydrase by a group of sulfanilamide compounds,” 2nd Workshop on Computer Aided Drug Design & Development Molecular Modeling, 26-29 June, Ankara, Turkey Başkent University (Poster Sunumu) (http://www.wcadd.org/bolum/abstract/abstract_book.pdf), page 17 (2008)

E. Patentler

3. L Chapman, M Hasnah, O Oltulu, Z Zhong, J Mollenhauer, C Muehleman, K Kuettner, M Aurich, E Pisano, et al., “Diffraction Enhanced X-ray Imaging of Articular Cartilage,” US Patent No. 657,7708 (2003).
4. M Wernick, L Chapman, O Oltulu, Z Zhong, “Imaging Method Based on Attenuation, Refraction and Ultra-small-angle-scattering of X-rays,” US Patent No. US 6,947,521 B2 (2005)

7.1 Uluslararası Atıflar

Toplam Atıf Sayısı = **497**

Yazarın Kendisi Dışında Aldığı Atıf Sayısı = **450**

8. Ulusal & Uluslararası Projeler (DPT, TÜBİTAK, AB, vb)

1. *Yönlendirilmiş Nematik Sıvı Kristaller ve Yönelim Açısının Hesaplanması*, Harran Üniversitesi Bilimsel Araştırma Komisyonu(HÜBAK) Projesi, proje no: 12203, **Proje Yöneticisi** 2011-2013, **Tamamlandı.**

2. *Nanoyapılar*. DPT-HAMIT, DPT-FOTON, NATO-SET-193 ve TUBITAK. Proje numaraları 113E331, 109A015, 109E301. Proje elemanı.

9. İdari Görevler

Batı Dilleri Başkan Vekili	Harran Üniversitesi	2006 - 2008
Fizik Bölümü Başkan Yardımcısı	Harran Üniversitesi	2008 –2010
Fizik Bölüm Başkanı	Harran Üniversitesi	2016

10. Bilimsel Kuruluşlara Üyelikler

Türkiye Fizik Derneği

11. Ödüller

Yurt Dışı Yüksek Lisans-Doktora bursu, A.B.D, 1994-2003

12. Son iki yılda verdiğiniz lisans ve lisansüstü düzeydeki dersler için aşağıdaki tabloyu doldurunuz.

Akademik Yıl	Dönem	Dersin Adı	Haftalık Saati		Öğrenci Sayısı
			Teorik	Uygulama	
2013-2014	Güz	Kuantum Mekaniği-I	3	2	14
		Atom ve Molekül Fiziği	3	2	6
		Mesleki Yabancı Dil I	3	0	2
		X ışınları Difraksiyonu	3	0	7
		Kuantum Mekaniği (Doktora)	3	0	1
		Danışmanlık			2
	İlkbahar	Kuantum Mekaniği-II	3	2	19
		Atom ve Molekül Fiziği	3	2	9
		Kuantum Mekaniği-I (Yüksek Lisans)	3	0	4
		X ışınları Kırınımı (Yüksek Lisans)	3	0	2
Danışmanlık				2	
2014-2015	Güz	Elektromagnetik Teori-I (Yüksek Lisans)	3	0	2
		Kuantum Mekaniği-I	3	2	8
		X ışınları Difraksiyonu	3	0	1
		Seminer			1
		Danışmanlık			2
		Kuantum Mekaniği-II	3	2	8
		Atom ve Molekül Fiziği	3	2	5
		Kuantum Mekaniği –I (Yüksek Lisans)	3	0	2

		X ışınları Kırınımı	3	0	2
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